

AMENDMENTS TO THE SPECIFICATION:

Please amend the paragraph bridging pages 1 and 2 as follows:

Since light passes through a liquid crystal layer by reflection twice back and forth in the case of each of liquid crystal light ~~bulbs~~ valves, the thickness of the liquid crystal layer can be formed about half as compared with a transmissive type. With the formation of about half thickness of the liquid crystal layer, its response speed results in four times. As a liquid crystal projector to which reflection type light ~~bulbs~~ valves are applied, there has been known a configuration disclosed in, for example, Japanese Patent Laid-open No. 2001-318426.

Please amend the paragraph bridging pages 2 and 3 as follows:

Referring to Fig. 17, reference numeral 11 designates a light source, 12 designates a reflector, and 13 and 14 designate a first multilens array and a second multilens array, respectively, used as a lens array type integrator. Reference numeral 32 designates a flat plate type polarized-light converting means comprising a multi prism array, 15 designates a focusing lens, 16 designates a condenser lens, 17 designates a sixth dichroic mirror, 18, 19 and 20 designate polarizing beam splitters, 21 and 23 designate flat plate glasses, 22 designates a partial polarization rotating element for converting a polarized state of color light (R light in this case) in a specific wavelength band by P-polarization and S-polarization, 33 designates a partial polarization rotating element for converting a polarized state of color light (B light in this case) in a specific wavelength band by P-polarization and S-polarization, 24, 25 and 26 designate reflection type light ~~bulbs~~ valves, and 34 designates a total reflection mirror.

Please amend the paragraph bridging pages 3 and 4 as follows:

Referring to Fig. 17, a light flux or bundle emitted from the light source 11 results in a light bundle which is reflected by the reflector 12 having a parabolic shape and parallel to an optical axis. The quality of light on each lens cell of the first multilens array 13 is superimposed on an effective surface of each of the reflection type light ~~bulbs~~ valves 24, 25 and 26 under the operations of the second multilens array 14 and the focusing lens 15, so that the uniformity of a quality-of-light distribution is improved. Incidentally, the natural light is aligned in its polarizing direction to, for example, S-polarized light (hereinafter S-polarized light rays are indicated by solid lines) by the flat plate type polarized-light converting means disposed following the second multilens array 14. The light passes through the focusing lens 15 and is turned by the total reflection mirror 34, followed by entering into the condenser lens 16. The condenser lens 16 performs the action of making main light rays parallel, i.e., bringing the same into telecentric form.

Please amend the second full paragraph on page 4 as follows:

Since the R light reflected by the sixth dichroic mirror 17 is of an S-polarized light bundle, it penetrates the partial polarization rotating element 33 and is thereafter reflected by a polarization separating surface of the polarizing beam splitter 18 and enters into the reflection type light ~~bulb~~ valve 24 for R. The light reflected from the reflection type light ~~bulb~~ valve 24 makes a substitute of its polarized state in an ON state and thereby turns into the S-polarized light (hereinafter P-polarized light rays are indicated by dotted lines). Therefore, next, the light penetrates the polarizing beam splitter 18 and penetrates the flat plate glass 21, after which it is converted into S-polarized light by the partial polarization rotating element 22 for rotating the

polarized state of the R light by P-polarization and S-polarization, which in turn is reflected by a polarization separating surface of the polarizing beam splitter 20, followed by being launched into a projection lens (not shown).

Please amend the paragraph bridging pages 4 and 5 as follows:

Since the G light that has transmitted through the sixth dichroic mirror 17 is of an S-polarized light bundle, it is reflected by a polarization separating surface of the polarizing beam splitter 19 and applied to the reflection type light ~~bulb~~ valve 25 for G. The light reflected from the reflection type light ~~bulb~~ valve 25 makes a substitute of its polarized state in an ON state and thereby turns into the P-polarized light. Therefore, next, the light penetrates the polarizing beam splitter 19 and penetrates the flat plate glass 23. Further, the light penetrates the polarization separating surface of the polarizing beam splitter 20 and enters the projection lens (not shown).

Please amend the first full paragraph on page 5 as follows:

Since the B light reflected by the sixth dichroic mirror 17 is of an S-polarized light bundle but is converted into P-polarized light by the partial polarization rotating element 33, it penetrates the polarization separating surface of the polarizing beam splitter 18 and is emitted to the reflection type light ~~bulb~~ valve 26 for B. Since the light reflected from the reflection type light ~~bulb~~ valve 26 makes a substitute of its polarized state in an ON state and thereby turns into the S-polarized light. Therefore, next, the light is reflected by the polarizing beam splitter 18 and penetrates the flat plate glass 21 and the partial polarization rotating element 22. Then it is reflected by the polarization separating surface of the polarizing beam splitter 20 and enters the projection lens (not shown).

Please amend the second full paragraph on page 6 as follows:

The explanatory diagram of Fig. 17 and the configurational diagram of the color separation/synthesis system disclosed in Japanese Patent Application No. 2001-318426 are different in position of each color reflection type light ~~bulb~~ valve but identical in configuration in that the color light is separated into one color and two colors by the dichroic mirror and the two partial polarization rotating elements are disposed on the associated optical paths for the two colors.

Please amend the paragraph bridging pages 20 and 21 as follows:

Meanwhile, the relationship of position between the polarized-light converting means 4 shown in Fig. 1 and the color separation/synthesis system shown in Fig. 5 is established as it is even if it is rotated 90° to substitute horizontal/vertical relations with each other. However, the thickness of a prism constituting the color separation/synthesis system can be made thin by allowing a separating direction of the color separation/synthesis system of Fig. 5 to coincide with a vertical direction (short side) of a reflection type light ~~bulb~~ valve. At this time, the coordinate systems shown in Figs. 1 and 5 have been adopted because an advantage is brought about in that ① a reduction in double refraction at the polarizing beam splitter is achieved and ② a back focus can be reduced, thereby bringing about an advantage in reducing the size of a projection lens.

Please amend the paragraph bridging pages 21 and 22 as follows:

The B light bundle is reflected by a sixth dichroic mirror 17 and enters a polarizing beam splitter 18. The B light bundle corresponding to the P-polarized light penetrates a polarization

separating surface of the polarizing beam splitter 18 and is incident on a reflection type light ~~bulb~~ valve 26 for B. The light reflected from the reflection type light ~~bulb~~ valve 26 makes a substitute of its polarized state in an ON state and is hence turned into the S-polarized light. Therefore, the light is reflected by the polarization separating surface of the polarizing beam splitter 18 and penetrates a flat plate glass 21 and a partial polarization rotating element 22 for rotating a polarized state of R light by P-polarization and S-polarization. Further, the light is reflected by a polarization separating surface of a polarizing beam splitter 20 and enters a projection lens (not shown).

Please amend the first full paragraph on page 24 as follows:

A light flux emitted from the polarized-light converting means 4 as P-polarized light is turned into S-polarized light for the color separation/synthesis system. The S-polarized light used as the leakage light of the B light bundle is reflected by a sixth dichroic mirror 17 for reflecting the B light bundle and then reflected by a polarization separating surface of a polarizing beam splitter 18, followed by being incident on a reflection type light ~~bulb~~ valve 24 for R. The light reflected from the reflection type light ~~bulb~~ valve 24 makes a substitute of its polarized state in an ON state to thereby turn into P-polarized light. Therefore, the light penetrates the polarization separating surface of the polarizing beam splitter 18 this time. Further, it penetrates a flat plate glass 21 and a partial polarization rotating element 22 for rotating a polarized state of R light by P-polarization and S-polarization, and penetrates a polarization separating surface of a polarizing beam splitter 20, followed by being outputted to the right side as viewed in the drawing. Therefore, no problem occurs.

Please amend the paragraph bridging pages 24 and 25 as follows:

In the above description, the leakage light at the first polarizing beam splitter 40 and the leakage light at the second polarizing beam splitter 41 have been explained separately as the leakage light of the B light bundle. Although a combination leakage light at the first polarizing beam splitter 40 and that at the second polarizing beam splitter 41, and a combination with leakage light of other optical elements are also conceivable as a matter of course except for the above, leakage light at a plurality of optical elements show no problem in practice in terms of the fact that ① the entrance of light fluxes obtained by inverting the P-polarized light and S-polarized light into the reflection light ~~bulb~~ valve is the cause of contrast degradation and ② the extinction ratio of the polarization separating surface itself has a value exceeding 1000 : 1 for reference incidence.

Please amend the second full paragraph on page 28 as follows:

The R light bundle corresponding to the S-polarized light is reflected by a sixth dichroic mirror 17 and then reflected by a polarization separating surface of a polarizing beam splitter 18, followed by being incident on a reflection type light ~~bulb~~ valve 24 for R. The light reflected from the reflection type light ~~bulb~~ valve 24 makes a substitute of its polarized state in an ON state to thereby turn into P-polarized light. Therefore, the light penetrates the polarization separating surface of the polarizing beam splitter 18 and a flat plate glass 21 this time. Next, it penetrates a partial polarization rotating element 22 for rotating a polarized state of R light by P-polarization and S-polarization. The R light bundle brought to the S-polarized light is reflected by a polarization separating surface of a polarizing beam splitter 20, following by being launched into a projection lens (not shown).

Please amend the paragraph bridging pages 28 and 29 as follows:

Similarly, the G light bundle corresponding to the S-polarized light penetrates the sixth dichroic mirror 17 and is thereafter reflected by a polarization separating surface of a polarizing beam splitter 19, followed by being launched into a reflection type light ~~bulb~~ valve 25 for G. The light reflected from the reflection type light ~~bulb~~ valve 25 makes a substitute of its polarized state in an ON state to thereby turn into P-polarized light. Therefore, the light penetrates the polarization separating surface of the polarizing beam splitter 19, a plate glass 23 and the polarization separating surface of the polarizing beam splitter 20, followed by being launched into a projection lens (not shown).

Please amend the second full paragraph on page 31 as follows:

A light flux or bundle emitted from the polarized-light converting means 4 as the S-polarized light turns into P-polarized light for the color separation/synthesis system. The P-polarized light used as the leakage light of the R light bundle is reflected by a sixth dichroic mirror 17 for reflecting the R light bundle and then penetrates a polarization separating surface of a polarizing beam splitter 18, followed by being incident on to a reflection type light ~~bulb~~ valve 26 for B. The light reflected from the reflection type light ~~bulb~~ valve 26 makes a substitute of its polarized state in an ON state to thereby turn into S-polarized light. Therefore, the light penetrates the polarization separating surface of the polarizing beam splitter 18 and a plate glass 22 this time. Next, it penetrates a partial polarization rotating element 22 for rotating a polarized state of R light by P-polarization and S-polarization to turn into P-polarized light. Since the light

penetrates a polarization separating surface of a polarizing beam splitter 20 and is outputted to the right side as viewed in the drawing, no problem occurs.

Please amend the first full paragraph on page 34 as follows:

The B light bundle aligned to the S-polarized light by the polarized-light converting means 4 is launched into the color separation/synthesis system as P-polarized light, and the R light bundle/G light bundle aligned to the P-polarized light is launched therein as S-polarized light, after which their color separation and synthesis are performed by the color separation/synthesis system. The color-separated light bundles are respectively subjected to optical strength modulation on reflection type light ~~bulbs~~ valves 24, 25 and 26, so that optical images are formed. The optical images of the respective light bundles are combined together, which in turn are outputted or emitted from the color separation/synthesis system and enlarged by an unillustrated projection lens, followed by being projected on the screen not shown.

Please amend the paragraph bridging pages 36 and 37 as follows:

In Fig. 18, an R light bundle/G light bundle of the white light emitted from a light source is reflected by an R light bundle/G light bundle reflection and B light bundle penetration type first dichroic mirror 101 and launched into a polarized-light converting means 4 from the lower side as viewed in the drawing. The B light bundle of the white light, which has penetrated the first dichroic mirror 101, is reflected by total reflection mirrors 2 and 3, followed by entering into the polarized-light converting means 4 from the left side as viewed in the drawing. Since the light bundles color-separated into the two colors in contrast to Fig. 1 are launched into the polarized-light converting means 4, the R light bundle/G light bundle corresponding to S-

polarized light, and the B light bundle corresponding to P-polarized light are emitted from a first polarizing beam splitter 40 and a second polarizing beam splitter 41 of the polarized-light converting means 4. When the polarized-light converting means 4 is now combined with the color separation/synthesis system shown in each of Figs. 5 and 16, a 1/2-wave plate 105 is provided on the outgoing side of the polarized-light converting means 4 to align two-color polarizing directions with Fig. 1 to thereby convert the R light bundle/G light bundle from the S-polarized light to the P-polarized light and convert the B light bundle to S-polarized light, after which they may be outputted. Although not described in detail, it is also of course feasible to change the layout of reflection type light ~~bulbs~~ valves 24, 25 and 26 of a color separation/synthesis system and the direction of a projection lens and omit the 1/2-wave plate 105.